

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of	) Examiner: <b>R. Schoepel (Anticipated)</b>
Name <b>Guenter W. Brune et al</b>	)
	) Group Art Unit: <b>3672 (Anticipated)</b>
Serial No. <b>Not Yet Assigned</b>	)
	) Att. Docket No.: <b>DCI-6CIP1D3</b>
Filed: <b>October 27, 2003</b>	)
	) Date: <b>October 27, 2003</b>
For: <b>ESTABLISHING POSITIONS OF LOCATING</b>	)
<b>FIELD DETECTORS AND PATH MAPPING</b>	)
<b>IN UNDERGROUND BORING TOOL</b>	)
<b>APPLICATIONS</b>	)

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on October 27, 2003.

Signed: 

Jay R Beyer

Mail Stop Patent Application  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA, 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Enclosed are copies of Information Disclosure Citation Forms PTO-1449 and PTO-892 from the parent applications. It is respectfully requested that the cited documents be considered and that the enclosed copies of Forms be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant(s).

Pursuant to 37 C.F.R. § 1.97, the submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed as an admission that the information cited in this statement is material to patentability.

Pursuant to 37 C.F.R. § 1.97, this Information Disclosure Statement is being submitted under one of the following (as indicated by an "X" to the left of the appropriate paragraph):

☒ 37 C.F.R. § 1.97(b).

☐ 37 C.F.R. § 1.97(c). If so, then enclosed with this Information Disclosure Statement is one of the following:

☐ A certification pursuant to 37 C.F.R. § 1.97(e) or

☐ A check for \$\_\_\_ for the fee under 37 C.F.R. § 1.17(p).

☐ 37 C.F.R. § 1.97(d). If so, then enclosed with this Information Disclosure Statement are the following:

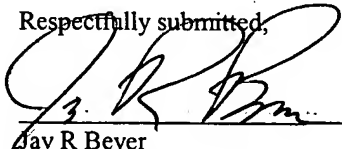
(1) A certification pursuant to 37 C.F.R. § 1.97(e);

(2) A petition requesting consideration of the Information Disclosure Statement; and

(3) A check for \$\_\_\_ for the fee under 37 C.F.R. § 1.17(i) for submission of the Information Disclosure Statement.

If there are any additional charges, please charge Deposit Account No. 19-1685 (Order No. DCI-6CIP1D3).

Respectfully submitted,



Jay R Beyer

Registration No. 39,907

<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)	<b>Atty Docket No.</b> DCI-P006CIP	<b>Serial No.:</b> Not Yet Assigned
	<b>Applicants:</b> Guenter W. Brune et al	<b>Group</b> Not Yet Assigned
	<b>Filing Date</b> June 1, 1999	

31046 U.S. P.T.C.  
 09/845238  
 04/30/01

### U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
RJS	A	4,881,083	11/14/89	Chau et al			
	B	5,633,589	5/27/97	Mercer			
	C	*5,337,002	8/9/94	Mercer			
	D	*4,054,881	10/18/77	Raab			
	E	*4,314,251	2/2/82	Raab			
	F	*4,710,708	12/1/87	Rorden et al			
	G	*4,806,869	2/89	Chau et al			
	H	*4,968,978	11/6/90	Stolarczyk			
	I	*5,066,917	11/19/91	Stolarczyk			
	J	*5,070,462	12/3/92	Chau			

### Foreign Patent or Published Foreign Patent Application

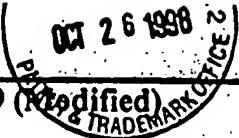
Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation	
							Yes	No
	K							

### Other Documents


Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	L	
	M	
	N	
Examiner		Date Considered
Dr. Roger Schoeffel		7/25/01

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*Copies of these references are not included since they were referenced in the Parent Application Serial Number 08/835,834.



<b>Form 1449 (Modified)</b>  <b>Information Disclosure Statement By Applicant</b>  (Use Several Sheets if Necessary)	Atty Docket No. <b>DCI1P006</b> Applicants: <b>John E. Mercer, et al.</b> Filing Date: <b>April 16, 1997</b>  Serial No.: <b>08/815,834</b> <div style="border: 1px solid black; border-radius: 50%; width: 150px; height: 50px; display: flex; align-items: center; justify-content: center; margin: 5px;"> <b>09/84238</b> </div> Group
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**09/845238**  
  
 04/30/01

**U.S. Patent Documents**

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-class	Filing Date
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<i>RS</i>	B	4,054,881	10/18/77	F. Raab	343	112R	4/26/76
<i>RS</i>	C	4,314,251	2/2/82	F. Raab	343	112R	7/30/79
<i>RS</i>	D	*4,710,708	12/1/87	L. Rorden, et al.	324	207	7/23/82
	E						
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	H						
	I						
	J						
	K						
Examiner <i>Dr. Roger Schaeffer</i>				Date Considered <i>11/12/98</i>			
<i>Dr. Roger Schaeffer</i>				<i>7/25/01</i>			

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\*Copy of this patent is forthcoming.

# Notice of References Cited

Application N.

08/835334

Applicant(s)

MERGER ET AL

Examiner

SCHOEPPH

Group Art Unit

3672

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* DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS
A 4,806,809	2/1989	CHAU ET AL	175	45X
B 4,968,978	11/1990	STOLARCZYK	175	40X
C 5,066,917	11/1991	"	32X	338
D 5,070,462	12/1991	CHAU	364	420
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## FOREIGN PATENT DOCUMENTS

* DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
N					
O					
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Q					
R					
S					
T					

## NON-PATENT DOCUMENTS

* DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
U	
V	
W	
X	

\* A copy of this reference is not being furnished with this Office action.  
(See Manual of Patent Examining Procedure, Section 707.05(a).)

Notice of References Cited

Application No.

09/324224

Applicant(s)

BRUNE ET AL

Examiner

SCHOEPPEL

Group Art Unit

3672

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E	5698981	12/1997	MERCER		
F	5711381	1/1998	ARCHAMBEAULT ET AL		
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H	Dr. Roger Schmitt 7/25/01				
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X		

\* A copy of this reference is not being furnished with this Office action.  
(See Manual of Patent Examining Procedure, Section 707.05(a).)

# **Notice of References Cited**

Application No.

09/845238

Applicant(s)

BRUNF ET AL

Examiner

SCHOPPEL

Group Art Unit

3672

Page 1 of 1

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* A	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS
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* B	5231355	7/1993	RIDER ET AL		
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## **FOREIGN PATENT DOCUMENTS**

* N	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
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## **NON-PATENT DOCUMENTS**

* U	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
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(See Manual of Patent Examining Procedure, Section 707.05(a).)